

[10191/4491]

REQUEST FOR PAYMENT OF ADDITIONAL FEES

PCT/DE2004/001326

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The International Search Office has determined that this international Application includes several (groups of) inventions, namely:

1. Claims: 1-10

Method for carrying out a software update of an electronic control unit by a flash programming via an appropriate finite state machine

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2. Claims: 11-12

Method for carrying out a software update of an electronic control unit by a flash programming using a software clipboard

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This office has determined that the international Application includes several inventions or groups of inventions, which are not connected by an individual, general inventive idea (Rule 13.1 PCT), namely:

I: Claims 1-10: Method for carrying out a software update of an electronic control unit by a flash programming via an appropriate finite state machine

II: Claims 11-12: Method for carrying out a software update of an electronic control unit by a flash programming using a software clipboard

The reasons for this are the following:

The search yielded the following relevant related art for assessing the unity of the invention:

D1: US 2003/041182 A1 (MARTWICK ANDREW W) February 27, 2003

Document D1 describes a method for carrying out a software update of an electronic control unit by a flash programming via a finite state machine (cf. Abstract, paragraphs 25, 28, 31, 37, 43 and 44).

A comparison of the present groups of claims to the document named shows that the following features make a contribution to the related art, and therefore may be regarded as special technical features according to Rule 13.2 PCT:

Group I: Establishing the requirements to be put on the flash programming. Checking the reliability requirements of each status and each transition

Group II:

- a) copying the old boot block to be newly programmed into a free region of a second memory
- b) activating the old boot block in the second memory and deactivating the old boot block in the flash memory
- c) intermediate storage of a new boot block in a second segment of the flash memory
- d) programming the new boot block by copying the second segment after the first segment
- e) activating the new boot block in the first segment and deactivating the old boot block in the second memory

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When checking the question as to whether possibly common particular technical features exist because of a technical effect, it is further apparent that it is to be seen that the technical effect of the first group are ensured in requirements while each of the steps of the programming method exists, and that the technical effect of the second group is to be seen in holding the old version of the software in the memory until the updating process is ended.

As problems solved by the special technical features, one may regard:

Group I: how one can ensure that a programming process may be started again from each possible step of the programming method  
Group II: how one can ensure that the old software is executed in functioning order without interferences, up to the flash programming

These problems are different from each other or known in the related art (see above).

This shows that there is also no corresponding technical effect present. From this it is established that neither on the basis of the object on which the respective invention is based, nor on the basis of the technical approach specified by the special technical features of each invention, a technical interrelation can be determined which makes real a single general inventive idea.

Consequently, neither with regard to the special technical

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features nor with regard to the solved problems is there unity  
of the invention between the named groups of claims according to  
Rules 13.1 and 13.2 PCT